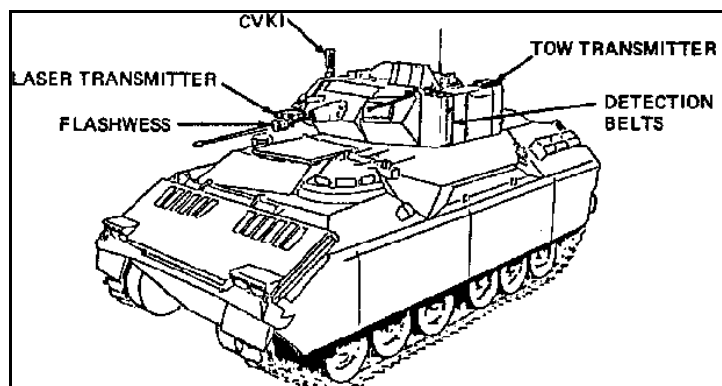## SIMULATOR SYSTEM, FIRING, LASER:
M83 FOR M2/M3 FIGHTING VEHICLE

Functional Description:

   The MILES family, consisting of 18 fielded distinct weapon firing simulator systems, employs eye-safe lasers and microelectronics to realistically simulate the firing capabilities of rifles, machine guns, and other direct-fire weapons. Small battery-operated laser transmitters, which attach easily to conventional field weapons, allow ground troops to fire coded (to distinguish range and killing power of specific weapons) invisible laser pulses instead of live ammunition. Receiving detectors, located on opposing troops and vehicles, pick up the laser pulses and instantly provide audio/ visual indications of a kill, hit, or near miss. Kill indicators on men or vehicles will disable the victim's weapon. The hit and kill probabilities are similar to those achieved when using live ammunition.

   In the M83 Simulator System, all weapons on the M2 and M3 vehicles are equipped with laser transmitters that are fired using normal operating procedures. Special detector belts on the vehicle's exterior sense opposing fire. Crew members wear torso and helmet harnesses that detect fire against them. A control console and flashing light are included.

Purpose of Trainer:

   The device is a component of the Multiple Integrated Laser Engagement System (MILES). MILES is a family of training systems which simulate the effects of direct-fire weapons at their operational ranges and operate in a fully integrated tactical training environment. MILES provides the capability for two-sided, real-time tactical engagement at unit sizes up to battalion and for realistic casualty assessments.

   Firing the weapon simulators is much like firing the actual weapons. However, instead of firing live ammunition, these simulators transmit harmless laser beams. To allow the simulation to be as real as possible, the rifle and machine guns use blank ammunition, and the missiles and main guns use weapons effect simulators to simulate the noise, blast, and smoke of the actual weapons. The specific training requirements supported are shown following the descriptive data.

Physical Information:
   Equipment: 52.25" L x 43.75" W x 15.88" H
   TOW Tubes: 62.19" L x 25.25" W x 23.94" H

Equipment Required, Not Supplied:
  Battery, BA 3090 (9v, transistor)
  Battery, BA 200U (6v)

Special Installation Requirements:
  None

Power Requirements:
  9vdc

Training Category/Level Utilized:
  Combat Arms/Level 3

Training Requirements Supported:
ARTEPs Supported
  7-15   17-55   71-2

MOSC 11B, 11Z, 19D, 19E, and 19Z

SM Tasks
  All tactical tasks for skill levels 1 through 5.

Applicable Publications:
  TM 9-1265-375-10

Reference Publications:
  TM 9-1005-313-10
  TM 9-2350-252-10
  TM 9-1005-316-12&P

Source and Method of Obtaining:
  Available through local TSC.

Logistic Responsible Command, Service, or Agency:
  PEO STRI